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ezoidal right prism-shaped frame; and wherein said front surface defines a second end of said hollow isosceles trapezoidal right prism-shaped frame, the second end being larger than the first end.

- 12. The inter-vertebral implant of claim 9, wherein the 5 hollow prism-shaped frame is constructed from at least one biocompatible material.
- 13. The inter-vertebral implant of claim 12, wherein the at least one biocompatible material is selected from the group consisting of:
  - metals selected from the group consisting of titanium, nickel, aluminum, nickel-titanium alloys, titanium-aluminum alloys, titanium-aluminum-vanadium alloys, and mixtures thereof;
  - ceramics selected from the group consisting of alumina, 15 zirconia, calcium oxides, calcium phosphates, and hydroxyapatite;
  - polymers selected from the group consisting of polyethylene, polypropylene, polysulfone, and polyetheretherketone (PEEK);

natural bone tissue; and

synthetic bone.

- 14. The inter-vertebral implant of claim 12, wherein the at least one biocompatible material is selected from the group consisting of titanium, nickel-titanium alloys, titanium-aluminum alloys, titanium-aluminum-vanadium alloys, and mixtures thereof.
- **15**. The inter-vertebral implant of claim **12**, wherein the at least one biocompatible material is bone tissue harvested from an autologous source; allograft bone tissue; xenograft 30 bone tissue, or artificial bone.
- 16. The inter-vertebral implant of claim 1, wherein the hollow frame is contrasted from a single biocompatible material selected from the group consisting of titanium, nickeltitanium alloys, titanium-aluminum alloys, and titanium-aluminum-vanadium alloys: and wherein said solid side panels are thinner than the front surface and the rear surface.
- 17. The inter-vertebral implant of claim 1, wherein the top load bearing surface, the bottom load bearing surface, the front surface, and the rear surface are constructed from a first 40 biocompatible material; and

the solid side panels are constructed from a second biocompatible material.

18. The inter-vertebral implant of claim 17, wherein:

the first bio-compatible material is selected from the group 45 consisting of titanium, nickel, aluminum, nickel-titanium alloys, titanium-aluminum alloys, titanium-aluminum-vanadium alloys, and mixtures thereof; and

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the second bio-compatible material is selected from the group consisting of:

ceramics selected from the group consisting of alumina, zirconia, calcium oxides, calcium phosphates, and hydroxyapatite

- polymers selected from the group consisting of polyethylene, polypropylene, polysulfone, and polyetheretherketone (PEEK); and an X-ray transparent metal foil.
- 19. The inter-vertebral implant of claim 18, wherein: the X-ray transparent metal foil is an aluminum foil or a titanium foil.
- 20. The inter-vertebral implant of claim 17, wherein: the first bio-compatible material is selected from the group consisting of natural bone tissue or synthetic bone; and the second bio-compatible material is an X-ray transparent metal foil.
- 21. The inter-vertebral implant of claim 1, further comprising a bone grafting material in the interior of the frame.
- 22. The inter-vertebral implant of claim 1, wherein at least the top and bottom load bearing surfaces have been modified to support osteointegration.
- 23. The inter-vertebral implant of claim 1, wherein at least a portion of the top load bearing surface and at least a portion of the bottom load bearing surface are modified by etching or sandblasting to support osteointegration.
  - **24**. The inter-vertebral implant of claim 1, wherein: the hollow frame is made of titanium or an alloy thereof; and
  - at least a portion of the top load bearing surface and at least a portion of the bottom load bearing surface are modified by coating with hydroxyapatite or tricalcium phosphate to support osteointegration.
- **25**. The inter-vertebral implant of claim 1, wherein: said plurality of clearance holes comprising a plurality of indented offset screw holes; each medical fastener comprising a screw.
  - 26. The inter-vertebral implant of claim 1, wherein:
  - a first screw hole of said plurality of screw holes is adapted to direct a first screw into an upper vertebra, and
  - a second screw hole of said plurality of screw holes is adapted to direct a second screw into a lower vertebra.
  - **27**. The inter-vertebral implant of claim **1**, wherein:
  - said first frictional surface is a photoetched portion of said top load bearing surface; and said second frictional surface is a photoetched portion of said bottom load bearing surface.

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